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THE H-6000 TUNING GUIDE. VOLUME IV. APPENDIXES. REVISION 1. CHA--ETC(U)
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DEFENSE COMMUNICATIONS AGENCY
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WASHINGTON, D. C. 20301

IN REPLY
REFER TO: C702

LEVEL III

12 October 1979

TO: Recipients

SUBJECT: Change 2 to TM 180-78, The H-6000 Tuning Guide, Volume
IV - Appendixes, Revision 1, Change 1

1. Insert the enclosed change pages and destroy the replaced pages according to applicable security regulations.
2. A list of effective pages to verify the accuracy of this manual is enclosed. This list should be inserted before the title page.
3. When this change has been posted, make an entry in the Record of Changes.

FOR THE DIRECTOR

28 Enclosures
Change 2 pages

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EFFECTIVE PAGES - 9 SEPT 1979

This list is used to verify the accuracy of TM 180-78 Volume IV Revision 1 after change 2 pages have been inserted. Original pages are indicated by the letter 0 and change 1 pages are indicated by the numeral 1, change 2 pages are indicated by the numeral 2.

<u>Page No.</u>	<u>Change No.</u>
Title Page - 176	0
177-178.1	2
178.2	1
179	2
180-181	0
182-194	2
194.1 - 194.8	2
195-207	0

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2. TSS TRACE PACKAGE INSTALLATION.

Three steps are necessary to install the TSS trace package: preparation of an edit tape, preparation of a GMF object file, and input of the edit tape during system startup.

2.1 Preparation of edit tape.

Preparation of the edit tape requires a FILEDIT activity to create a dummy object library, a FILEDIT activity to reassemble the TSS modules to include new alters, and a SYSEDIT activity to convert the object file into a system loadable file on tape. The first FILEDIT activity is necessary since it is desired to use the OBJECT,UPDATE option in the second activity, and since an actual TSS object file is not conveniently available. Two groups of alters must be included in the second activity. The first is the group of alters which actually implement the GMF traces and console interface. The second group of alters consists of corrections or enhancements to TSS, included with the standard W6.4.2 release. Refer to figure J-5 for a complete listing of the JCL for setting up the edit tape.

This JCL stream will produce full listings of all the W6.4.2 TSS modules, altered for the trace package.

Site option patches #52A and #83A have been included in the alter file at line #'s 5060 and 6540 respectively as comments. These comments must be changed if the user wishes to include these options. If #83A is to be included, line 6460 must be changed to read "\$ ALTER 6807,6807."

Site option patch #81A is included in the alter file at line #'s 9540-9590. This patch allows Time Sharing to softload the following SSA modules: .MFS03, .MFS04, .MFS08, .MFS09, .MFS36, and .MFS61. If different modules are desired these alters must be modified.

The following patches which make corrections to the W6.4.2 source code are included in the alter file:

#04H Correction to alter 809+

#09L Correction to format of SCF type-218 record

#10K Correction to IDENT image in DRL TASK
 #11K Inclusion of COBR in common command list
 #15J Correction to security problems in DRL TASK
 #18H Elimination of security breach for invalid classification
 #26I Correction to #77F to restrict CDIN for SACLANT users
 #27I Correction to #85I for SACLANT; replaces #24G and #37G
 #28I Modification to TSSH for #27I
 #30G Correction to alter #06D
 #31G Spelling correction for .TSQJ1
 #33G Correction to typing error in alter 111+
 #33L Prevention of subsystem's being locked in core after security breach
 #34I Correction to TSS prompt after TSS MESS
 #36L Prevention of system crash after reconnect; replaces #81K
 #37J Bypass for coding associated with memory release
 #40G Correction for TSS console messages
 #42L Implementation of SDN K78045; replaces .2K
 #45L Deallocation of file after security breach; replaces #87K
 #50J Deletion of part of 885W to enable SSA loading
 #57I Correction to format of SCF type-001 record
 #57J Correction to format of SCF type-216 record
 #59L Prevention of TSS busy after security breach
 #62J Prevention of DRL SWITCH on SY**
 #68J Inclusion of SORT in common command list
 #69I Prevention of lockup faults
 #72H Correction to prevent ZCP faults in .MLOGN
 #75H Enhancement to allow lowercase output to VIP 7705's
 #77K Prevention of system crash from DRL FILACT type 14
 #81J Implementation of SDN F7501
 #83J Verification of DRL FILACT buffer address
 #93K Implementation of SDN K78045
 #96J Implementation of SDN F7501

When the altered version of TSS is to be run, any patches to TSSA must be repunched replacing the .MTIMS in columns 73-78 with XXXYYY. Such patches may be found in the EDIT section of the boot deck if they are being added using \$ APPLY cards or in the PATCH section of the boot deck. In addition, patches may have been made to the system files by means of a PAVS tape. A listing of the PAVS tape must be obtained to determine if any of the patches were made to catalog name .MTIMS. This XXXYYY module will be the trace implemented version of Time Sharing, located on system file TSS-GEALL. The original patches to .MTIMS can either be left in the patch deck or removed, since when Time-Sharing reloads itself, such patches are not reapplied. Any patches to TSSB through TSSO not contained on the alter file must be relocated and repunched using XXXYYY in place of .MTIMS. To determine the appropriate alter numbers or octal locations for such patches, obtain an unaltered listing of Time Sharing and a corresponding load map. Edit the JCL stream for obtaining a modified Time Sharing to remove all changes to the Time Sharing modules, and insert the following two records for each module:

```
$      ALTER  1,1
      LBL      TSSx, NSEQ (x=A, B, ..., O)
```

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2.3 Preparation of GMF object file.

Procedures for obtaining an object file are the same as those described in "GENERAL MONITORING FACILITY Users Manual"; they will not be repeated here.

2.4 Installation of new Time-Sharing on system files.

Installation of the TSS trace package requires that six cards be added to the H6000 boot deck. These are as follows:

\$	FILDEF	ST1,TSS-GECALL,96/O,SYS,3T5			
\$	SYSTEM	TSS-GECALL			
53211	OCTAL	2201000	MME	GECALL	.MTIMS
53212	OCTAL	676767707070	BCI	1,XXXY	.MTIMS
53213	OCTAL	0			.MTIMS
53214	OCTAL	0			.MTIMS

The \$ FILDEF card is placed in the \$ EDIT section. The tape drive name may need to be changed, based on the names given in the \$ CONFIG section of the boot deck. The \$ SYSTEM card is placed in the \$ FILES section. A partial edit of file TSS-GECALL is necessary to copy the new Time-Sharing onto the system. The four OCTAL patch cards, when placed in the \$ PATCH section, force TSS to reload itself with the altered version. Under W6.4.2, the entry point address for TSS is 53211; this is not necessarily the same for other system releases. The operator may select which version of TSS to bring up by inserting or removing these four cards, and by doing a warm boot of the system with only the \$ PATCH section being replaced.

3. OPERATION OF THE TIME-SHARING TRACE TOOL.

3.1 Operator commands to TSS.

Two new operands have been added to the TSS operator verb. These are "TRACE ON," which causes TSS to start making special traces for the trace tool, and "TRACE OFF," which stops the special traces. A response line is printed on the console to acknowledge processing of the console command.

3.2 GMC data collection procedure.

The standard GMC data collection procedure, as described in "GENERAL MONITORING FACILITY Users Manual," has not been changed. In the I* file, M8 must be enabled (i.e. "M8" must not appear on the data card). The operator must enter the "TSS TRACE ON" command to enable collection of the Time-Sharing traces. This command may be entered at any time after Time-Sharing starts, but it must be in effect while GMC is running. The "TSS TRACE OFF" command may be entered at any time after Time-Sharing starts. Use of this command while GMC is running will avoid writing data to the tape if no analysis is to be done for that time period. Multiple OFF/ON sequences are permissible on the same GMC tape. When GMC is not running, use of "TSS TRACE OFF" will eliminate the overhead of making the special traces. If "TSS TRACE OFF" is entered while the trace is disabled, no extra processing will occur, except for the printing of the message on the console indicating that the command had been examined.

Figure J-5.. ALTER FILE USED TO PREPARE EDIT TAPE

20\$	IDENT		
30\$	FILEDIT	SOURCE,OBJECT,INITIALIZE,NONE	
40\$	DATA	*C,,COPY	
50\$	GMAP	NLSTOU	TSSA
60	LBL	TSSA,NSEQ	
70	SYMDEF	TSSA	
80TSSA	DEC	0	
90	END		
100\$	GMAP	NLSTOU	TSSB
110	LBL	TSSB,NSEQ	
120	SYMDEF	TSSB	
130TSSB	DEC	0	
140	END		
150\$	GMAP	NLSTOU	TSSC
160	LBL	TSSC,NSEQ	
170	SYMDEF	TSSC	
180TSSC	DEC	0	
190	END		
200\$	GMAP	NLSTOU	TSSD
210	LBL	TSSD,NSEQ	
220	SYMDEF	TSSD	
230TSSD	DEC	0	
240	END		
250\$	GMAP	NLSTOU	TSSE
260	LBL	TSSE,NSEQ	
270	SYMDEF	TSSE	
280TSSE	DEC	0	
290	END		
300\$	GMAP	NLSTOU	TSSF
310	LBL	TSSF,NSEQ	
320	SYMDEF	TSSF	
330TSSF	DEC	0	
340	END		
350\$	GMAP	NLSTOU	TSSG
360	LBL	TSSG,NSEQ	
370	SYMDEF	TSSG	
380TSSG	DEC	0	
390	END		
400\$	GMAP	NLSTOU	TSSH
410	LBL	TSSH,NSEQ	
420	SYMDEF	TSSH	
430TSSH	DEC	0	
440	END		
450\$	GMAP	NLSTOU	TSSI
460	LBL	TSSI,NSEQ	
470	SYMDEF	TSSI	
480TSSI	DEC	0	
490	END		
500\$	GMAP	NLSTOU	TSSJ
510	LBL	TSSJ,NSEQ	
520	SYMDEF	TSSJ	

Figure J-5. Alter File Used to Prepare
Edit Tape (Part 1 of 20)

530TSSJ	DEC	0	
540	END		
550	GMAP	NLSTOU	TSSK
560	LBL	TSSK,NSEQ	
570	SYMDEF	TSSK	
580TSSK	DEC	0	
590	END		
600	GMAP	NLSTOU	TSSL
610	LBL	TSSL,NSEQ	
620	SYMDEF	TSSL	
630TSSL	DEC	0	
640	END		
650	GMAP	NLSTOU	TSSM
660	LBL	TSSM,NSEQ	
670	SYMDEF	TSSM	
680TSSM	DEC	0	
690	END		
700	GMAP	NLSTOU	TSSN
710	LBL	TSSN,NSEQ	
720	SYMDEF	TSSN	
730TSSN	DEC	0	
740	END		
750	GMAP	NLSTOU	TSSO
760	LBL	TSSO,NSEQ	
770	SYMDEF	TSSO	
780TSSO	DEC	0	
790	END		
800	ENEDIT		
810	ENDCOPY		
820	FILE	R*,Z2S	
830	LIMITS	1,,,1K	
840	FILE	P*,NULL	
850	FILEDIT	SOURCE,OBJECT,UPDATE,NONE	
860	LIMITS	,,,40K	
870	DATA	*C,,COPY	
880	INCLUDE		
890	SYSLD	CATALOG=XXXXYY	
900	LOWLOAD		
910	OPTION	NOSETU,SYMREF	
920	NOLIB		
930	MODIFY	SOURCE,OBJECT,TSSA	
940	GMAP		TSSA
950	UPDATE	LIST	TSSA/GMF
960	ALTER	598,598	
970CARDIN	PRGDES	CDIN,EXPCL,.TSCDI,.BSAC	#26I
980	ALTER	666,666	
990	PRGDES	EXUT,EXPCL,.TSQJ1,.BSAC	#31G
1000	ALTER	749	
1010.BJOPS	BOOL	200000	#93K
1020	PRGDES	JOPS,EXPCL,.TJOPS,.BJOPS	#93K
1030	PRGDES	JOPT,EXPCL,.TJOPT,.BJOPS	#93K

Figure J-5. (Part 2 of 20)

1040\$	ALTER	899	***** ALTERS FROM SYSTEM PATCHES *****	
1050	ASCII	1, SORT		#68J
1060	OCT	0		#68J
1070	ASCII	1, COBR		#11K
1080	OCT	0		#11K
1090\$	ALTER	977	***** ALTERS FROM SYSTEM PATCHES *****	
1100	ZERO	C65	SORT	#68J
1110	ZERO	C66	COBR	#11K
1120\$	ALTER	1067	***** ALTERS FROM SYSTEM PATCHES *****	
1130C65	XCALL	SORT, BIN		#68J
1140C66	XCALL	COBR, BIN		#11K
1150\$	ALTER	1240, 1240	***** ALTER FROM SYSTEM PATCHES *****	
1160	ASCII	1, DFAU		#04H
1170\$	ALTER	1242, 1242	***** ALTER FROM SYSTEM PATCHES *****	
1180	ASCII	1, WWLI		#04H
1190\$	MODIFY	SOURCE, OBJECT, TSSB		
1200\$	GMAP			TSSB
1210\$	UPDATE	LIST		TSSB/GMF
1220\$	ALTER	156	***** GMF ALTERS *****	
1230	SYMREF	TREP		GMF
1240	XED	TREP	EXECUTE DOUBLE AT TREP	GMF
1250	VFD	18/0, 12/7, 06/74	HAVE 18/PATTERN, 12/TRACE #, 06/74	GMF
1260\$	MODIFY	SOURCE, OBJECT, TSSC		
1270\$	GMAP			TSSC
1280\$	UPDATE	LIST		TSSC/GMF
1290\$	ALTER	10	***** ENABLE PMC *****	
1300	PMC	ON		GMF
1310\$	MODIFY	SOURCE, OBJECT, TSSD		
1320\$	GMAP			TSSD
1330\$	UPDATE	LIST		TSSD/GMF
1340\$	ALTER	18	***** ALTER FROM SYSTEM PATCHES *****	
1350	PMC	ON		GMF
1360\$	ALTER	271	***** GMF ALTERS *****	
1370	SYMREF	TREP		GMF
1380	VFD	18/TREP, 018/717200	EXECUTE DOUBLE AT TREP	GMF
1390	VFD	18/7, 12/175, 06/74	HAVE 18/PATTERN, 12/TRACE #, 06/74	GMF
1400\$	ALTER	392	***** GMF ALTERS *****	
1410	VFD	18/TREP, 018/717200	EXECUTE DOUBLE AT TREP	GMF
1420	VFD	18/0, 12/176, 06/74	HAVE 18/PATTERN, 12/TRACE #, 06/74	GMF
1430\$	ALTER	397	***** ALTERS FROM SYSTEM PATCHES *****	
1440	SYMREF	FVCC1	CANNOT RETRY DRL IF THIS	#59L
1450	LDA	FVCC1	--WAS A DEACCESS FOR A	#59L
1460	SZN	.WWUSI, 2	--BREACH. GO SET UP A PSEUDO	#59L
1470	THI	END	--CC TO RETRY PATDEA.	#59L
1480\$	ALTER	435, 435	***** ALTERS FROM SYSTEM PATCHES *****	
1490	SZN	.WWUSI, 2	IF WE ARE NOT WAITING FOR A	#59L
1500	TPL	ENDCC	--BREACH TO PROCESS, END CC.	#59L
1510	SYMREF	FVCC		#59L
1520	LDA	FVCC	THIS COULD BE THE ATTEMPT TO	#59L
1530END	STA	.LCC, 2	--RETRY PATDEA. HOPEFULLY WE	#59L
1540	LDA	.FL19+.FL30, DL	--WERE WAITING FOR THE CC TO	#59L

Figure J-5. (Part 3 of 20)

1550	ORSA	.LFLAG,2	--FINISH SO WE CAN USE THIS	#59L
1560	LCA	.LPACC,DL	--PSEUDO/ARTIFICIAL CC TO	#59L
1570	STA	.LTTYS,2	--CALL BRCH.	#59L
1580	ENDCC	LDA 3,DL	TELL ALLOC THIS USER FINISHED	#59L
1590\$	MODIFY	SOURCE,OBJECT,TSSE		
1600\$	GMAP			TSSSE
1610\$	UPDATE	LIST		TSSSF/GMF
1620\$	ALTER	11	***** ENABLE PMC *****	
1630	PMC	ON		GMF
1640\$	MODIFY	SOURCE,OBJECT,TSSSF		
1650\$	GMAP			TSSSF
1660\$	UPDATE	LIST		TSSSF/GMF
1670\$	ALTER	11	***** GMF ALTER *****	
1680	EDITP	ON		GMF
1690	PMC	ON		GMF
1700\$	ALTER	192	***** GMF ALTERS *****	
1710	TTLS	GMF TIME-SHARING TRACE PACKAGE ROUTINE		
1720	SYMDEF	TREP,JSTOFF,GMF002		GMF
1730	INHIB	ON		GMF
1740	JSTOFFESTC1	IC	SAVE IC + 1	GMF
1750	TRA	*+1	GET OUT OF XED	GMF
1760	SREG	SREGS	SAVE REGISTERS	GMF
1770	LDA	=027674,DL	PLACE T190 TYPE IN A	GMF
1780	LDQ	=0,DL	ZERO OUT Q	GMF
1790	TRA	MAKTR	GO MAKE TRACE T190	GMF
1800	TREP	ESTC1	IC	GMF
1810	TRA	*+1	GET OUT OF XED	GMF
1820	SREG	SREGS	SAVE REGISTERS	GMF
1830	LDA	IC,I	GET PATTERN #, TRACE TYPE	GMF
1840	LDX0	1,DU	INCREMENT OUR	GMF
1850	ASX0	IC	RETURN ADDRESS	GMF
1860	SZN	GMF002	CHECK T74 ON/OFF	GMF
1870	TZE	EXIT1	TRA --> TRACE IS OFF	GMF
1880	EAX0	0,AU	PATTERN --> XO	GMF
1890	ANA	=077777,DL	TRACE TYPE IN AL	GMF
1900	STA	TYPE	SAVE IN TYPE 0000000TTT74	GMF
1910	ARS	6	000000000TTT	GMF
1920	EAX1	0,AL	X1 = 000TTT TRACE TYPE	GMF
1930*	FOR	T7, T179, T181 NEED LNID IN QL SO TEST THIS		GMF
1940	CMPX1	=182,DU	IS TRACE TYPE >= 182	GMF
1950	TPL	GE182	YES --> TRA	GMF
1960	CMPX1	7,DU	TEST FOR LOG-ON TRACE	GMF
1970	TZE	LINEID	NEED LINE ID+UST ADDRESS	GMF
1980	CMPX1	179,DU		GMF
1990	TZE	LINEID		
2000	CMPX1	181,DU		GMF
2010	TNZ	USTADR		GMF
2020	LINEID	LDQ .LBUF,2	STATION ID	GMF
2030	ANQ	=07777,DL	IN	GMF
2040	CMPQ	=02020,DL	SEE IF THIS GUY IS 2020	GMF
2050	TNZ	STOREQ	NO -- STORE ADDRESS	GMF

Figure J-5. (Part 4 of 20)

2060	CMPX1	7,DU	TEST FOR LOG-ON TRACE	GMF
2070	TNZ	LINE1	NOT LOG-ON TRACE	GMF
2080	LDA	.TSDJB	CHECK FOR DEFERRED USER STARTING	GMF
2090	TRA	LINE2		GMF
2100LINE1	LDA	.LCJID,2	GET DEFERRED JOB ID	GMF
2110LINE2	TZE	STOREQ	NOT DEFERRED USER (TSRI)	GMF
2120	LRS	16	MOVE LAST DIGIT TO BITS 0-3 IN Q	GMF
2130	DUP	2,3	MOVE OTHER 3 DIGITS	GMF
2140	ARS	2	SKIP HIGH-ORDER 2 BITS	GMF
2150	LRS	4	MOVE DIGIT TO Q-UPPER	GMF
2160	QRL	20	MOVE TO Q-LOWER	GMF
2170	ORQ	=0200000,DL	INDICATE DEFERRED USER	GMF
2180STOREQ	STQ	SAVQ	SAVE Q-REGISTER	GMF
2190	CMPX1	181,DU	TEST FOR TRACE TYPE T181	GMF
2200	TZE	T181		GMF
2210USTADR	STX2	TYPE	STORE UST ADDRESS INTO TRACE	GMF
2220	LDA	TYPE	GET A-REGISTER FOR TRACE	GMF
2230*	SET	UP TRANSFER TABLE DEPENDENT UPON PATTERN VALUE		GMF
2240XFER	TRA	*+1,0	TRANSFER TABLE FOLLOWS	GMF
2250	TRA	MAKTR	FOR XO=0 ONLY NEEDED TO SET UP A	GMF
2260	TRA	QPTRN	FOR XO=1 Q=1 FOR A T172, T173	GMF
2270	TRA	QPTRN	FOR XO=2 SET Q = PATTERN STORED IN XO	
2280	TRA	QPTRN	FOR XO=3 SET Q = PATTERN STORED IN XO	
2290	TRA	QPTRN	FOR XO=4 SET Q = PATTERN STORED IN XO	
2300	TRA	QPTRN	FOR XO=5 SET Q = PATTERN STORED IN XO	
2310	TRA	QPTRN	FOR XO=6 SET Q = PATTERN STORED IN XO	
2320	TRA	QPTRN	FOR XO=7 SET Q = PATTERN STORED IN XO	
2330	TRA	QPTRN	FOR XO=8 SET Q = PATTERN STORED IN XO	
2340	TRA	QPTRN	FOR XO=9 SET Q = PATTERN STORED IN XO	
2350	TRA	QPTRN	FOR XO=10 SET Q = PATTERN STORED IN XO	
2360	TRA	QPTRN	FOR XO=11 SET Q = PATTERN STORED IN XO	
2370	TRA	QLFLG	FOR XO=12 Q = .LFLAG FOR T146, T163, T174	
2380	TRA	T144	FOR XO=13 TYPE T144 GETS TIME TYPES IN Q	
2390	TRA	T160	FOR XO=14 TYPE T160 GETS FAULT TYPE IN Q	
2400	TRA	T16A	FOR XO=15 TYPE T16 Q=SSNAME (LODPRM+8)	
2410	TRA	T16B	FOR XO=16 TYPE T16 Q=SSNAME (POPPR1+11)	
2420	TRA	T165	FOR XO=17 TYPE T165	GMF
2430	TRA	DFRCHK	FOR XO=18 T138 (SOME), T139,	GMF
2440*			T146 (T136), T149, T163	GMF
2450	TRA	T172	FOR XO=19 TYPE T172 (SOME)	GMF
2460	TRA	T146	FOR XO=20 TYPE T146 (SOME)	GMF
2470	TRA	T180	FOR XO=21 TYPE T180	GMF
2480*	CONTROL	COMES HERE FOR PATTERN=22 (T179)		GMF
2490	STX3	SAVQ	UST ADDRESS OF RE-CONNECTED SESSION	GMF
2500	LDQ	SAVQ	GET ENTIRE Q-REGISTER FOR TRACE	GMF
2510	TRA	MAKTR	MAKE TRACE T179	GMF
2520*	END	OF TRANSFER TABLE		GMF
2530T180	EAQ	0,4	GET NEW UST ADDRESS IN QU	GMF
2540	TRA	MAKTR	MAKE TRACE T180	GMF
2550QPTRN	EAQ	0,0	PATTERN --> Q FROM XO FOR T173, T175	GMF
2560	QRL	18	MOVE PATTERN TO QL	GMF

Figure J-5. (Part 5 of 20)

2570	TRA	MAKTR	GO MAKE TRACE	GMF
2580QLFLG	LDQ	.LFLAG,2	T146,T163,T174 NEED .LFLAG BITS 18-35	
90	ANQ	=0777777,DL	IN QL	GMF
2600	CMPX1	=146,DU	CHECK IF T146	GMF
2610	TZE	LDQU	YES--GO GET .LFLG2 IN QU	GMF
2620	TRA	MAKTR	GO MAKE TRACE T163, T174	GMF
2630T144	LDQ	-1,3	TIME TYPES - .LTMOO THRU .LTMS	GMF
2640	EAX4	0,QL	OLD TYPE LOCATION	GMF
2650	TMI	STORQL	-1?	GMF
2660	EAX4	-61,4	NO - CONVERT TO ACTUAL TIME TYPE	GMF
2670STORQL	SXL4	SAVQ	SAVE OLD TYPE	GMF
2680	EAX4	0,QU	NEW TYPE LOCATION	GMF
2690	EAX4	-61,4	CONVERT TO ACTUAL TIME TYPE	GMF
2700	STX4	SAVQ	SAVE NEW TYPE	GMF
2710	LDQ	SAVQ	NEW TYPE IN QU, OLD TYPE IN QL	GMF
2720	TRA	MAKTR	GO MAKE TRACE	GMF
2730T160	LDQ	SREGS+4	FAULT TYPE IN	GMF
2740	CMPQ	5,DL	DO NOT CAPTURE FAULT TYPE 5	GMF
2750	TZE	EXIT1	X	GMF
2760	CMPQ	10,DL	OR 10	GMF
2770	TZE	EXIT1	X	GMF
2780	CMPQ	=4,DL	IS THIS A DERAIL FAULT	GMF
2790	TNZ	MAKTR	NO, GO MAKE TRACE	GMF
2800	LDX3	.TESSB	ELSE, MUST RETRIEVE DERAIL #	GMF
2810	ANX3	=0777000,DU	ISOLATE SS BASE ADDRESS	GMF
2820	LDQ	.LFLAG,2	IF THIS IS	GMF
2830	CANQ	=0100000,DL	A MASTER SS	GMF
40	TZE	*+3		GMF
2850	LDX3	18	GET DERAIL LOCATION DIRECTLY	GMF
2860	TRA	*+2		GMF
2870	ADLX3	18	ELSE ADD IN RELATIVE IC UPON ENTRY	GMF
2880	LDQ	-1,3	ACTUAL DRL INSTRUCTION AT IC-1	GMF
2890	EAQ	0,QU	LEAVE DERAIL # IN UPPER	GMF
2900	ADLQ	=4,DL	PUT FAULT TYPE (DERAIL=4) IN LOWER	GMF
2910	TRA	MAKTR	GO MAKE TRACE	GMF
2920T16A	LDX3	SREGS+4	POINTER TO SSNAME IN X3 FROM OLD AU	GMF
2930	LDQ	0,3	ASCII SSNAME IN Q	GMF
2940	TRA	MAKTR	GO MAKE TRACE T16	GMF
2950T16B	LDX3	SREGS	SAVED X0 --> X3	GMF
2960	LDX3	0,3	POINTER TO SSNAME IN X3	GMF
2970	LDQ	0,3	ASCII SSNAME IN Q	GMF
2980	TRA	MAKTR	GO MAKE TRACE T16	GMF
2990T165	LDQ	.LFLAG,2	WANT TO CHECK	GMF
3000	ANQ	=0000040,DL	BIT 30 OF .LFLAG	GMF
3010	TZE	EXIT1	DONT MAKE TRACE IF BIT 30 OFF	GMF
3020	TRA	MAKTR	MAKE TRACE T165 IF BIT 30 ON	GMF
3030DFRCHK	SZN	.LCJID,2	TEST DEFERRED JOB NO. IN UST	GMF
3040	TNZ	CHK146	NONZERO--DEFERRED USER	GMF
3050	LDQ	.LFLG2,2	CHECK IF COMMAND FILE	GMF
3060	CANQ	=0001000,DU	IS BIT 8 ON?	GMF
3070	TZE	NRMAL	NO --> NOT COMMAND FILE	GMF

Figure J-5. (Part 6 of 20)

3080	CMPX1	=146,DU	HAVE COMMAND FILE; CHECK IF T146	GMF
3090	TZE	MAK136	YES - MAKE THE T146 A T136	GMF
3100	CMPX1	=138,DU	CHECK IF T138	GMF
3110	TZE	MAKTR	YES - MAKE T138 (COMMAND FILE USER)	GMF
3120	ANQ	=0020000,DU	IS BIT 4 ON (TALK MODE)	GMF
3130	TZE	EXIT1	NO --> DONT TRACE	GMF
3140	CMPX1	=163,DU	YES -- CHECK IF T163	GMF
3150	TZE	QLFLG	YES --> GO MAKE T163	GMF
3160	TRA	EXIT1	NO --> DONT TRACE	GMF
3170NRMAL	CMPX1	=149,DU	CHECK IF T149	GMF
3180	TZE	MAKTR	YES -- MAKE TRACE T149	GMF
3190	CMPX1	=139,DU	CHECK IF T139	GMF
3200	TZE	MAKTR	YES -- MAKE T139	GMF
3210	CMPX1	=138,DU	CHECK IF T138	GMF
3220	TZE	EXIT1	YES - NO TRACE (NORMAL USER)	GMF
3230	TRA	QLFLG	HAVE T163 OR T146 (NEED .LFLAG)	GMF
3240*	IF TRACE IS T146 (DEFERRED USER), MAKE IT A T136 AND TRACE		GMF	
3250*	IT, OR IF TRACE IS T138 (DEFERRED USER) TRACE IT, ELSE EXIT		GMF	
3260CHK146	CMPX1	=146,DU	IS THIS T146?	GMF
3270	TNZ	CHK138	NO - SEE IF T138	GMF
3280MAK136	SEA	=01200,DL	YES - MAKE THE T146 A T136 TRACE	GMF
3290	TRA	QFLAGS	GO MAKE T136 AFTER PICK UP .LFLAG,.LFLG2	GMF
3300CHK138	CMPX1	=138,DU	CHECK IF T138	GMF
3310	TZE	MAKTR	YES - MAKE T138 (DEFERRED USER)	GMF
3320	TRA	EXIT1	NO - NO TRACE	GMF
3330QFLAGS	LDQ	.LFLAG,2	T146, T136 GET .LFLAG	GMF
3340	ANQ	=0777777,DL	IN QL	GMF
3350LDQU	LDX4	.LFLG2,2	GET .LFLG2 IN X4	GMF
3360	STQ	SAVQ	PUT Q IN SAVQ	GMF
3370	EAQ	0,4	.LFLG2 IN QU	GMF
3380	ORQ	SAVQ	.LFLAG BACK IN QL	GMF
3390	TRA	MAKTR	GO MAKE T136 OR T146	GMF
3400T172	LDQ	.LFILE,2	PROGRAM STACK POINTER IN QU	GMF
3410	LDQ	0,QU	CURRENT ENTRY POINTER IN QU	GMF
3420	LDQ	0,QU	PROGRAM DESCRIPTOR POINTER IN QU	GMF
3430	LDQ	0,QU	ASCII SSNAME IN Q	GMF
3440	CMPQ	NU	NEWUSER COMMAND?	GMF
3450	TZE	EXIT1	YES - DONT TRACE	GMF
3460	LDQ	0,DL	SET Q=0 FOR THIS T172	GMF
3470	TRA	MAKTR	GO MAKE TRACE T172	GMF
3480T146	LDQ	=0020000,DL	FORCE Q BITS 21,22 = 01	GMF
3490	TRA	LDQU	GO GET .LFLG2 IN QU	GMF
3500*	HAVE T181 HERE. MUST PREPARE A AND Q		GMF	
3510T181	STZ	SSFLG	ZERO	GMF
3520	STZ	SAVSS	SOME	GMF
3530	STZ	BTSFLG	FLAGS	GMF
3540	STZ	BTSAL	AND SWITCHES	GMF
3550	STQ	LIN181	SAVE LINE ID FOR TRACE	GMF
3560	LDX3	.TAMPT	POINTER TO DUMMY MAP ENTRY	GMF
3570CHKNXT	LDX3	0,3	POINTER TO NEXT ACTIVE ENTRY	GMF
3580	TZE	SSNM	NO MORE ENTRIES	GMF

Figure J-5. (Part 7 of 20)

3590	LDQ	1,3	WORD 2 OF ENTRY	GMF
3600	QLS	18	BIT 18 ON?	GMF
10	TMI	BTOS	YES - BTOS BUFFER ENTRY	GMF
3620	SZN	SSFLG	SS ENTRY ENCOUNTERED YET?	GMF
3630	TNZ	CHKNXT	YES - GET NEXT ENTRY	GMF
3640	STQ	UST	NO - SAVE ENTRY'S UST POINTER	GMF
3650	CMPX2	UST	IS IT THIS USER'S ENTRY?	GMF
3660	TNZ	CHKNXT	NO - GET NEXT ENTRY	GMF
3670	LDA	0,3	YES - WORD 1 OF ENTRY	GMF
3680	ARS	9	SS SIZE IN A BITS 30-35	GMF
3690	LDQ	1,3	WORD 2 OF ENTRY	GMF
3700	LRS	9	SS SIZE IN Q 0-8, SS LAL IN Q 9-17	GMF
3710	STQ	SAVSS	SAVE Q	GMF
3720	AOS	SSFLG	SET SS ENTRY INDICATOR	GMF
3730	SZN	BTSFLG	BTOS ENTRY ENCOUNTERED YET?	GMF
3740	TZE	CHKNXT	NO - GET NEXT ENTRY	GMF
3750SSNM	LDQ	SAVSS	SS SIZE AND SS LAL IN QU	GMF
3760	ANQ	=0777777,DU	ZERO OUT QL	GMF
3770	ORQ	BTSLAL	ADD BTOS LAL TO Q BITS 18-26	GMF
3780	STX2	TYPE	STORE UST ADDRESS	GMF
3790	LDA	.LFILE,2	PROGRAM STACK POINTER IN AU	GMF
3800	LDX3	0,AU*	ADDRESS OF SUBSYSTEM NAME	GMF
3810	LDA	0,3	SUBSYSTEM NAME	GMF
3820	STA	SSNAM		GMF
3830	EAX3	LIN181	ADDRESS OF LINE ID+SUBSYSTEM NAME	GMF
3840	LDA	TYPE	GET A-REGISTER FOR TRACE	GMF
3850	TRA	MAKTR	GO MAKE TRACE	GMF
50BTOS	ANQ	=0377777,DU	CLEAR BTOS INDICATOR BIT	GMF
3870	STQ	UST	SAVE ENTRY'S UST POINTER	GMF
3880	CMPX2	UST	IS IT THIS USER'S BTOS ENTRY?	GMF
3890	TNZ	CHKNXT	NO - GET NEXT ENTRY	GMF
3900	LDQ	1,3	YES - WORD 2 OF ENTRY	GMF
3910	QRS	18	BTOS LAL IN Q BITS 18-26	GMF
3920	ANQ	=0777000,DL	ZERO OUT REST OF Q	GMF
3930	STQ	BTSLAL	SAVE BTOS LAL	GMF
3940	AOS	BTSFLG	SET BTOS ENTRY INDICATOR	GMF
3950	SZN	SSFLG	SS ENTRY ENCOUNTERED YET?	GMF
3960	TZE	CHKNXT	NO - GET NEXT ENTRY	GMF
3970	TRA	SSNM	YES - FINISH TRACE ENTRY	GMF
3980GE182	LDA	TYPE	A GETS 0000000TTT74	GMF
3990	CMPX0	0,DU	CHECK PATTERN	GMF
4000	TZE	MAKTR	GO MAKE TRACE (PATTERN=0 FOR T182,T183)	
4010*	STILL HAVE T184, T185 WITH PATTERNS 22,23			GMF
4020	CMPX0	23,DU	CHECK IF PATTERN=23	GMF
4030	TZE	T185	YES -- HAVE T185	GMF
4040*	HAVE TRACE T184 HERE			GMF
4050	LDQ	SREGS+4	IS SIZE NEGATIVE	GMF
4060	TPL	MAKTR	NO--CORE NOT RELEASED, MAKE TRACE T184	
4070	LCQ	SREGS+4	COMPLEMENT NEGATIVE SIZE	GMF
4080	ORQ	=0400000,DU	SET BIT 0 TO INDICATE SIZE DECREASE	GMF
4090	TRA	MAKTR	GO MAKE TRACE T184	GMF

Figure J-5. (Part 8 of 20)

4100T185	LDQ	0,DL	CLEAR ACCUMULATOR	GMF
4110	LDX3	.TAMPT	GET POINTER TO 1ST ENTRY (DUMMY)	GMF
4120PROCES	ADLQ	0,3	ACCUMULATE HOLE SIZES (BITS 27-35)	GMF
4130	LDX3	0,3	GET RELATIVE POINTER TO NEXT ENTRY	GMF
4140	TNZ	PROCES	IF NON-ZERO, GO FETCH AND PROCESS	GMF
4150	QLS	9	IF ZERO, THIS WAS LAST ONE. POSITION	GMF
4160	EAX3	0,QL	AND STORE IN INSTRUCTION	GMF
4170	STX3	INSTR	X	GMF
4180	LXL3	.TACOR	SWAP END ADDR IS TSS SIZE	GMF
4190	EAA	0,3	PUT IN A UPPER; 0 --> AL	GMF
4200	SBLX3	.TACOR	CALC SWAP AREA SIZE	GMF
4210	EAQ	0,3	POSITION IN QREG (UPPER)	GMF
4220INSTR	ORQ	** ,DL	OR IN AVAILAABLE SWAP CORE SIZE	GMF
4230	ORA	TYPE	REINSERT TYPE TO LOWER OF A	GMF
4240	LXL3	.TCNOU	CURRENT NUMBER OF USERS IN X3	GMF
4250MAKTR	MME	.EMM	ENTER MASTER MODE	GMF
4260	XEC	.CRTRC+2	CHECK TRACE MECHANISM ON/OFF	GMF
4270	TSS	EXIT1	TRACE IS OFF/SEE NOTE BELOW	GMF
4280*	NOTE-DURING OPERATION ABOVE SHOULD NEVER BE TAKEN SINCE IF			GMF
4290*	TRACE MECHANISM IS OFF, SO WILL T74 AND WE WONT GET			GMF
4300*	THIS FAR.			GMF
4310	LDX0	.CRTRC+3	ADDRESS --> X0	GMF
4320	TSX1	1,0*	MAKE TRACE ENTRY	GMF
4330EXIT1	LREG	SREGS,\$	RELOAD REG; CNTRL RTRNS HERE AFTER TRACE	GMF
4340	RET	IC,\$	RETURN TO TS MODULE	GMF
4350*				GMF
4360TYPE	BSS	1	USED TO STORE TYPE	GMF
4370IC	BSS	1	SAVE AREA FOR IC	GMF
4380SSFLG	BSS	1	SUBSYSTEM FLAG	GMF
4390SAVSS	BSS	1	SAVE SUBSYSTEM	GMF
4400BTSFLG	BSS	1	BTOS FLAG	GMF
4410BTSAL	BSS	1	BTOS LOWER ADDRESS LIMIT	GMF
4420UST	BSS	1	UST POINTER	GMF
4430SAVQ	BSS	1	WORD TO SAVE Q REGISTER	GMF
4440SREGS	8BSS	8	AREA TO SAVE REGISTERS	GMF
4450LIN181	EBSS	1	T181 LINE ID STORED HERE	GMF
4460SSNAM	BSS	1	SUBSYSTEM NAME FOR T181	GMF
4470GMF002	DEC	0	FLAG FOR TRACE ON OR OFF	GMF
4480NU	ASCII	1,NEWU		GMF
4490\$	MODIFY	SOURCE,OBJECT,TSSG		
4500\$	GMAP			TSSG
4510\$	UPDATE	LIST		TSSG/GMF
4520\$	ALTER	82 -	***** GMF ALTERS *****	
4530	SYMREF	TREP		GMF
4540	XED	TREP	EXECUTE DOUBLE AT TREP	GMF
4550	PMC	ON		GMF
4560	VFD	18/0,12/164,06/74	HAVE 18/PATTERN, 12/TRACE #, 06/74	GMF
4570\$	MODIFY	SOURCE,OBJECT,TSSH		
4580\$	GMAP			TSSH
4590\$	UPDATE	LIST		TSSH/GMF
4600\$	ALTER	24	***** GMF ALTER *****	

Figure J-5. (Part 9 of 20)

4610	PMC	ON		GMF
4620\$	ALTER	185	***** GMF ALTERS *****	
30	SYMREF	TREP		GMF
4640	VFD	18/TREP,018/717200 EXECUTE DOUBLE AT TREP		GMF
4650	VFD	18/16,12/16,06/74 HAVE 18/PATTERN, 12/TRACE #, 06/74		GMF
4660\$	ALTER	272	***** ALTER FROM SYSTEM PATCHES *****	
4670	LDQ	2,0	PICK UP RESTRICT BITS	#28I
4680\$	ALTER	378	***** GMF ALTERS *****	
4690	VFD	18/TREP,018/717200 EXECUTE DOUBLE AT TREP		GMF
4700	VFD	18/0,12/171,06/74 HAVE 18/PATTERN, 12/TRACE #, 06/74		GMF
4710\$	ALTER	404	***** GMF ALTERS *****	
4720	VFD	18/TREP,018/717200 EXECUTE DOUBLE AT TREP		GMF
4730	VFD	18/15,12/16,06/74 HAVE 18/PATTERN, 12/TRACE #, 06/74		GMF
4740\$	MODIFY	SOURCE,OBJECT,TSSI		
4750\$	GMAP			TSSI
4760\$	UPDATE	LIST		TSSI/GMF
4770\$	ALTER	19	***** ENABLE PMC *****	
4780	PMC	ON		GMF
4790\$	ALTER	207	***** GMF ALTERS *****	
4800	SYMREF	TREP		GMF
4810	XED	TREP	EXECUTE DOUBLE AT TREP	GMF
4820	VFD	18/19,12/172,06/74 HAVE 18/PATTERN, 12/TRACE #, 06/74		GMF
4830\$	ALTER	633,647	***** ALTERS FROM SYSTEM PATCHES *****	
4840	CANQ	.BSAC,DL	WAS IT RESTRICTED	#27I
4850	TZE	0,1	NO	#27I
4860	LDA	.WUSM,2	RESTRICTED USERS	#27I
4870	ERA	=020000,DL	HAVE BIT 20 OFF	#27I
80	CANA	=0120000,DL	AND BIT 20 OFF (SIC)	#27I
4890	TNZ	0,1	TRANSFER FOR NON-RESTRICT	#27I
4900	LDX0	=0706,DU	BREACH CODE 76	#27I
4910	TRA	BRCH	SHOUT HIM DOWN	#27I
4920\$	MODIFY	SOURCE,OBJECT,TSSJ		
4930\$	GMAP			TSSJ
4940\$	UPDATE	LIST		TSSJ/GMF
4950\$	ALTER	65	***** GMF ALTERS *****	
4960	SYMREF	TREP		GMF
4970TRMAC	MACRO			GMF
4980	VFD	18/TREP,018/717200 EXECUTE DOUBLE AT TREP		GMF
4990	VFD	18/#1,12/#2,06/74 HAVE 18/PATTERN, 12/TRACE #, 06/74		GMF
5000	ENDM	TRMAC		GMF
5010	PMC	ON		GMF
5020\$	ALTER	89	***** GMF ALTER *****	
5030	TRMAC	23,185	PATTERN VALUE, TRACE TYPE	GMF
5040\$	ALTER	246	***** GMF ALTER *****	
5050	TRMAC	0,177	PATTERN VALUE, TRACE TYPE	GMF
5060*	ALTER	454,454	***** ALTER FROM SYSTEM PATCHES *****	
5070*	EAX1	1	PUT ONE LINE IN MESSAGE	#52A
5080\$	ALTER	455,458	***** ALTERS FROM SYSTEM PATCHES *****	
5090	STCQ	STD4,70		#40G
5100	LDA	.FBT32,DL		#40G
5110	CANA	.TLFLG		#40G

Figure J-5. (Part 10 of 20)

5120	TZE	MSR325		#40G
5130\$	ALTER	691	***** GMF ALTER *****	
5140	TRMAC	0,137	PATTERN VALUE, TRACE TYPE	GMF
5150\$	ALTER	982	***** GMF ALTER *****	
5160	TRMAC	18,149	PATTERN VALUE, TRACE TYPE	GMF
5170\$	ALTER	1271,1271	***** ALTER FROM SYSTEM PATCHES *****	
5180	STA	0,3		#34I
5190\$	ALTER	1558	***** GMF ALTER *****	
5200	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
5210\$	ALTER	1836	***** GMF ALTER *****	
5220	TRMAC	1,172	PATTERN VALUE, TRACE TYPE	GMF
5230\$	ALTER	1919	***** GMF ALTER *****	
5240	TRMAC	12,146	PATTERN VALUE, TRACE TYPE	GMF
5250\$	ALTER	1994	***** GMF ALTER *****	
5260	TRMAC	0,138	PATTERN VALUE, TRACE TYPE	GMF
5270\$	MODIFY	SOURCE,OBJECT,TSSK		
5280\$	GMAP			TSSK
5290\$	UPDATE	LIST		TSSK/GMF
5300\$	ALTER	26	***** GMF ALTERS *****	
5310	SYMREF	TREP		GMF
5320	TRMAC	MACRO		GMF
5330	VFD	18/TREP,018/717200 EXECUTE DOUBLE AT TREP		GMF
5340	VFD	18/#1,12/#2,06/74 HAVE 18/PATTERN, 12/TRACE #, 06/74		GMF
5350	ENDM	TRMAC		GMF
5360	PMC	ON		GMF
5370\$	ALTER	92	***** GMF ALTER *****	
5380	TRMAC	0,148	PATTERN VALUE, TRACE TYPE	GMF
5390\$	ALTER	266,266	***** ALTER FROM SYSTEM PATCHES *****	
5400	TRA	*+6,\$	SKIP RELM	#37J
5410\$	ALTER	286	***** GMF ALTER *****	
5420	TRMAC	0,164	PATTERN VALUE, TRACE TYPE	GMF
5430\$	ALTER	1122	***** GMF ALTER *****	
5440	TRMAC	0,142	PATTERN VALUE, TRACE TYPE	GMF
5450\$	ALTER	1138	***** GMF ALTER *****	
5460	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
5470\$	ALTER	1819	***** ALTERS FROM SYSTEM PATCHES *****	
5480	CMPX7	100,DU	ADDRESS >= 144	#83J
5490	TMI	KOTER1	IF NOT, ILLEGAL ADDRESS	#83J
5500\$	ALTER	1824	***** ALTERS FROM SYSTEM PATCHES *****	
5510	STX2	4,4	STORE UST ADDRESS IN UPPER HALF	#57J
5520	LDX1	=3HDRL,DU	SET FOR DRL FILACT	#57J
5530	SXL1	4,4	STORE IT INTO LOWER HALF	#57J
5540\$	ALTER	1957	***** ALTER FROM SYSTEM PATCHES *****	
5550	STZ	10,0		#77K
5560\$	ALTER	2253	***** GMF ALTER *****	
5570	TRMAC	1,175	PATTERN VALUE, TRACE TYPE	GMF
5580\$	ALTER	2500	***** GMF ALTER *****	
5590	TRMAC	0,176	PATTERN VALUE, TRACE TYPE	GMF
5600\$	ALTER	2797,2798	***** ALTERS FROM SYSTEM PATCHES *****	
5610	REMFL	.FUO,DU	LET PATDEA KNOW WE HAVE BREACHED	#45L
5620	ORSXO	.WWUSI,2	--CUZ WE MUST DEALLOCATE THE FILE	#45L

Figure J-5. (Part 11 of 20)

5630	REMFL2	LDX0	.LSIZE,2	SO WE NEED THE FILE ENTRY	#45L
5640		ANX0	=0777000,DU	--FROM W10 OF FMS BUFFER	#45L
5650		STX0	3,IC	--SO WE CAN SET UP A CALL	#45L
5660		ADLX0	.LDRL,2	--TO PATDEA.	#45L
5670		LXL0	2,0		#45L
5680		ADLX0	** ,DU		#45L
5690		SXL0	BUFCAL		#45L
5700		LXL4	10,0		#45L
5710		.EMM.			#45L
5720		ADLX4	.CRLAL,6		#45L
5730		LDA	1,4	FILENAME+0	#45L
5740		LDQ	2,4	FILENAME+1	#45L
5750		TSS	*+1		#45L
5760		TSX1	PATDEA	THIS IS THE CALL	#45L
5770	BUFCAL	ZERO	0,**	ZERO, BUFFER ADDRESS WITH BAR	#45L
5780		ZERO	0,0	+1,NEVER	#45L
5790		ZERO	0,0	+2,NEVER	#45L
5800		TSX1	LINSRV	GO WAIT FOR REAL CC TO FINISH	#45L
5810		SYMDEF	FVCC		#45L
5820	FVCC	TSX3	*+1		#45L
5830		EAX2	-.LCC-1,3	OK,THE REAL CC HAS FINISHED	#45L
5840		STZ	-1,3	--AND THE FILE IS NOW DEACCESSED	#45L
5850		LDX0	.FU0,DU		#45L
5860		ERSX0	.WWUSI,2		#45L
5870		EAX0	8	LETS BREACH THIS USER	#45L
5880		TRA	BRCH		#45L
5890		SYMDEF	FVCC1		#45L
5900	30FVCC1	TSX3	*+1	THE SMC WAS BUSY AND PATDEA	#45L
5910		EAX2	-.LCC-1,3	--COULD NOT DEALLOCATE THE FILE.	#45L
5920		STZ	-1,3		#45L
5930		TRA	REMFL2	GO RETRY PATDEA	#45L
5940\$		ALTER	3484,3485	***** ALTER #30G FROM SYSTEM PATCHES *****	#45L
5950\$		ALTER	3655	***** GMF ALTER *****	#45L
5960		TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
5970\$		ALTER	3989,3989	***** ALTERS FROM SYSTEM PATCHES *****	#45L
5980		ANA	-1,DL		#57I
5990		ALR	24		#57I
6000\$		ALTER	4000,4000	***** ALTERS FROM SYSTEM PATCHES *****	#57I
6010		LDA	.LBUF,2		#57I
6020		ANA	-1,DL		#57I
6030		ALR	24		#57I
6040		ORA	DATPT2		#57I
6050\$		ALTER	4058,4058	***** ALTER FROM SYSTEM PATCHES *****	#57I
6060	DATPT2	OCT	3400000		#57I
6070\$		ALTER	4062,4062	***** ALTER FROM SYSTEM PATCHES *****	#57I
6080	DATPT3	OCT	4400000		#57I
6090\$		ALTER	4071	***** GMF ALTER *****	GMF
6100		TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
6110\$		ALTER	4160	***** GMF ALTER *****	GMF
6120		TRMAC	9,173	PATTERN VALUE, TRACE TYPE	GMF
6130\$		ALTER	4403	***** GMF ALTER *****	GMF

Figure J-5. (Part 12 of 20)

6140	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
6150\$	ALTER	4515	***** GMF ALTER *****	
6160	TRMAC	0,16	PATTERN VALUE, TRACE TYPE	GMF
6170\$	ALTER	4624	***** GMF ALTER *****	
6180	TRMAC	0,142	PATTERN VALUE, TRACE TYPE	GMF
6190\$	ALTER	4654	***** GMF ALTER *****	
6200	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
6210\$	ALTER	4808	***** GMF ALTER *****	
6220	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
6230\$	ALTER	5437	***** ALTER #62J FROM SYSTEM PATCHES *****	
6240BAD	.TSS	SWH4	#62J	
6250\$	ALTER	5450	***** ALTERS FROM SYSTEM PATCHES *****	
6260	LXLO	3,3	SY**	#62J
6270	TZE	BAD,\$	YES	#62J
6280	LXLO	3,4	SY**	#62J
6290	TZE	BAD,\$	YES	#62J
6300\$	ALTER	5528	***** GMF ALTER *****	
6310	TRMAC	11,173	PATTERN VALUE, TRACE TYPE	GMF
6320\$	ALTER	5545	***** GMF ALTER *****	
6330	TRMAC	2,175	PATTERN VALUE, TRACE TYPE	GMF
6340\$	ALTER	5553	***** GMF ALTER *****	
6350	TRMAC	0,176	PATTERN VALUE, TRACE TYPE	GMF
6360\$	ALTER	5685	***** GMF ALTER *****	
6370	TRMAC	3,175	PATTERN VALUE, TRACE TYPE	GMF
6380\$	ALTER	5736	***** GMF ALTER *****	
6390	TRMAC	0,176	PATTERN VALUE, TRACE TYPE	GMF
6400\$	ALTER	5904	***** GMF ALTER *****	
6410	TRMAC	10,173	PATTERN VALUE, TRACE TYPE	GMF
6420\$	ALTER	6157	***** GMF ALTER *****	
6430	TRMAC	4,175	PATTERN VALUE, TRACE TYPE	GMF
6440\$	ALTER	6573	***** GMF ALTER *****	
6450	TRMAC	0,147	PATTERN VALUE, TRACE TYPE	GMF
6460\$	ALTER	6807	***** ALTERS FROM SYSTEM PATCHES *****	
6470*	NOTE CHANGE THE PRECEDING CARD TO "6807,6807" IF			
6480*	SITE OPTION #83A IS USED.			
6490	LDA	.LFILE,2		#92K
6500	LDQ	0,AU*		#92K
6510	LDA	2,QU		#92K
6520	CANA	=0200000,DL		#92K
6530	TNZ	*+8		#92K
6540*	LDA	=11520000	TIME LIMIT (SEC*64000) FOR DRL TASK	#83A
6550\$	ALTER	6850,6856	***** ALTER #10K FROM SYSTEM PATCHES *****	
6560*				#10K
6570\$	ALTER	7004,7004	***** ALTERS FROM SYSTEM PATCHES *****	
6580	EAX1	4		#15J
6590	SZN	TSK155,*1		#15J
6600	TNZ	TSK955		#15J
6610	STX4	TSK152		#15J
6620	TSX1	TSXSPF		#15J
6630TSK152	ZERO	** ,REW		#15J
6640	ZERO	.TCTM8		#15J

Figure J-5. (Part 13 of 20)

6650\$	ALTER	7072,7072	***** ALTERS FROM SYSTEM PATCHES *****	
6660TSK240	LDXO	TSK152		#15J
70\$	ALTER	7105	***** GMF ALTER *****	
6680	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
6690\$	ALTER	7215	***** GMF ALTER *****	
6700	TRMAC	8,173	PATTERN VALUE, TRACE TYPE	GMF
6710\$	ALTER	7354	***** GMF ALTER *****	
6720	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
6730\$	ALTER	8205	***** GMF ALTER *****	
6740	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
6750\$	ALTER	8462	***** GMF ALTER *****	
6760	TRMAC	6,175	PATTERN VALUE, TRACE TYPE	GMF
6770\$	ALTER	8498	***** GMF ALTER *****	
6780	TRMAC	0,176	PATTERN VALUE, TRACE TYPE	GMF
6790\$	ALTER	8919	***** GMF ALTER *****	
6800	TRMAC	22,179	TRACE FOR CONN COMMAND	GMF
6810\$	ALTER	8977	***** ALTER FROM SYSTEM PATCHES *****	
6820	STZ	.LKCC,2	NO CC WAITING	#36L
6830\$	ALTER	9254	***** GMF ALTER *****	
6840	TRMAC	5,175	PATTERN VALUE, TRACE TYPE	GMF
6850\$	ALTER	9263	***** GMF ALTER *****	
6860	TRMAC	0,176	PATTERN VALUE, TRACE TYPE	GMF
6870\$	ALTER	9296,9296	***** ALTER FROM SYSTEM PATCHES *****	
6880	TRA	3,IC		#18H
6890\$	ALTER	9398	***** ALTERS FROM SYSTEM PATCHES *****	
6900	ANA	-1,DL	SAVE LOWER HALF ONLY	#09L
6910	ORA	=0202020,DU	BLANK OUT THE UPPER HALF	#09L
20\$	ALTER	9409	***** ALTER FROM SYSTEM PATCHES *****	
0930	STZ	ACCNT+17	ZERO OUT WORD 18	#09L
6940\$	ALTER	9445,9446	***** ALTERS FROM SYSTEM PATCHES *****	
6950	ANA	=07777,DL	MASK LINE ID	#33G
6960	CMPI	=07777,DL	CHECK LINE FOR FALSE	#33G
6970\$	ALTER	9454,9454	***** ALTER FROM SYSTEM PATCHES *****	
6980	NOP	.CRLGQ+4,ID		#72H
6990\$	ALTER	9489,9489	***** ALTER FROM SYSTEM PATCHES *****	
7000	LDA	.LFLAG,2	IF SUBSYS KNOWN	#33L
7010\$	MODIFY	SOURCE,OBJECT,TSSL		
7020\$	GMAP			TSSL
7030\$	UPDATE	LIST		TSSL/GMF
7040\$	ALTER	37	***** GMF ALTERS *****	
7050	SYMREF	TREP		GMF
7060TRMAC	MACRO			GMF
7070	VFD	18/TREP,018/717200 EXECUTE DOUBLE AT TREP		GMF
7080	VFD	18/#1,12/#2,06/74 HAVE 18/PATTERN, 12/TRACE #, 06/74		GMF
7090	ENDM	TRMAC		GMF
7100	PMC	ON		GMF
7110\$	ALTER	176	***** GMF ALTER *****	
7120	TRMAC	12,174	PATTERN VALUE, TRACE TYPE	GMF
7130\$	ALTER	1021	***** GMF ALTER *****	
7140	TRMAC	0,182	PATTERN VALUE, TRACE TYPE	GMF
7150\$	ALTER	1086	***** GMF ALTER *****	

Figure J-5. (Part 14 of 20)

7160	TRMAC	22,184	PATTERN VALUE, TRACE TYPE	GMF
7170\$	ALTER	1315	***** GMF ALTER *****	
7180	TRMAC	21,181	PATTERN VALUE, TRACE TYPE	GMF
7190\$	ALTER	1966	***** GMF ALTER *****	
7200	TRMAC	13,144	PATTERN VALUE, TRACE TYPE	GMF
7210\$	ALTER	2255	***** GMF ALTER *****	
7220	TRMAC	0,148	PATTERN VALUE, TRACE TYPE	GMF
7230\$	ALTER	2366	***** GMF ALTER *****	
7240	TRMAC	0,148	PATTERN VALUE, TRACE TYPE	GMF
7250\$	ALTER	2536	***** GMF ALTER *****	
7260	TRMAC	0,135	VIP PAGING TRACE	GMF
7270\$	ALTER	2943	***** GMF ALTER *****	
7280	TRMAC	18,163	PATTERN VALUE, TRACE TYPE	GMF
7290\$	ALTER	2949	***** GMF ALTER *****	
7300	TRMAC	18,146	TRACE WILL BE T136 IF DEFERRED OR CRUN	
7310\$	MODIFY	SOURCE,OBJECT,TSSM		
7320\$	GMAP			TSSM
7330\$	UPDATE	LIST		TSSM/GMF
7340\$	ALTER	69	***** GMF ALTERS *****	
7350	SYMREF	TREP		GMF
7360	VFD	18/TREP,018/717200 EXECUTE DOUBLE AT TREP		GMF
7370	VFD	18/14,12/160,06/74 HAVE 18/PATTERN, 12/TRACE #, 06/74		GMF
7380	PMC	ON		GMF
7390\$	ALTER	760	***** GMF ALTERS *****	
7400	VFD	18/TREP,018/717200 EXECUTE DOUBLE AT TREP		GMF
7410	VFD	18/0,12/176,06/74 HAVE 18/PATTERN, 12/TRACE #, 06/74		GMF
7420\$	ALTER	852	***** GMF ALTERS *****	
7430	CPMA	=6HTRACE	TEST FOR NEW COMMAND	GMF
7440	TZE	GMF001		GMF
7450\$	ALTER	860	***** GMF ALTERS *****	
7460*				GMF
7470*				GMF
7480*	TRACE ON/OFF			GMF
7490*				GMF
7500*				GMF
7510	SYMREF	GMF002		GMF
7520GMF001	EAA	0,QU	ISOLATE OPERAND	GMF
7530	CPMA	=3HOFF,DU	TEST LEGAL VALUES	GMF
7540	TZE	GMF003		GMF
7550	CPMA	=3HON,DU		GMF
7560	TZE	GMF004		GMF
7570	STQ	GMF999	STORE INTO CONSOLE MESSAGE	GMF
7580	EAA	GMF899	DCW ADDRESS	GMF
7590	TRA	GMF100	WRITE MESSAGE	GMF
7600*	TRACE OFF			GMF
7610	SYMREF	JSTOFF		GMF
7620GMF003	SZNC	GMF002	SET INDICATOR OFF, TEST IT	GMF
7630	TZE	2,IC	DON'T MAKE TRACE IF ALREADY OFF	GMF
7640	XED	JSTOFF	MAKE TRACE TYPE T190	GMF
7650	EAA	GMF898	DCW ADDRESS	GMF
7660	TRA	GMF100	WRITE MESSAGE	GMF

Figure J-5. (Part 15 of 20)

7670*	TRACE ON			GMF
7680GMF004	STC2	GMF002	SET FLAG TO NONZERO	GMF
30	EAA	GMF897	DCW ADDRESS	GMF
7700GMF100	ARL	18	POSITION DCW ADDRESS	GMF
7710	STCA	GMF101,07	STORE INTO GEINOS SEQUENCE	GMF
7720	MME	GEINOS	WRITE MESSAGE TO CONSOLE	GMF
7730	WTYP			GMF
7740GMF101	ZERO	EXTS6A,**		GMF
7750	ZERO			GMF
7760	TRA	EXTS08	GET NEXT ENTRY	GMF
7770GMF897	IOTD	*+1,5		GMF
7780	OCT	770117171717		GMF
7790	BCI	4,*T/S GMF TRACE STARTED		GMF
7800GMF898	IOTD	*+1,5		GMF
7810	OCT	770117171717		GMF
7820	BCI	4,*T/S GMF TRACE STOPPED		GMF
7830GMF899E	IOTD	*+1,6		GMF
7840	OCT	770117171717		GMF
7850	BCI	4,*T/S INVALID GMF OPTION		GMF
7860GMF999	BCI	1,		GMF
7870\$	ALTER	956	***** GMF ALTERS *****	
7880	VFD	18/TREP,018/717200	EXECUTE DOUBLE AT TREP	GMF
7890	VFD	18/0,12/161,06/74	HAVE 18/PATTERN, 12/TRACE #, 06/74	GMF
7900\$	MODIFY	SOURCE,OBJECT,TSSN		
7910\$	GMAP			TSSN
7920\$	UPDATE	LIST		TSSN/GMF
7930\$	ALTER	22	***** ENABLE PMC *****	
40	PMC	ON		GMF
7950\$	ALTER	126,126	***** ALTER FROM SYSTEM PATCHES *****	
7960	TNZ	PATCH		#81J
7970\$	ALTER	140	***** ALTERS FROM SYSTEM PATCHES *****	
7980	INHIE	SAVE,ON		#81J
7990PATCH	LDA	.LBUF,2		#81J
8000	LCQ	=010000,DL		#81J
8010	MME	.EMM		#81J
8020	LXL4	.CRCGT		#81J
8030	LDX1	.CRCGT		#81J
8040	XED	.CRMPG		#81J
8050	DRL	.CRCGT+1		#81J
8060	XED	.CRMPG+2		#81J
8070L1	CMK	,1		#81J
8080	TZE	FND1,\$		#81J
8090	ADLX1	11,DU		#81J
8100	SBLX4	1,DU		#81J
8110	TNZ	L1,\$		#81J
8120NCON	STC2	.CRCGT+1		#81J
8130	XED	.CROGT		#81J
8140	TSS	GUST3N		#81J
8150FND1	SZN	0,1		#81J
8160	TPL	NCON,\$		#81J
8170	LDAC	4,1		#81J

Figure J-5. (Part 16 of 20)

8180	STC2	.CROGT+1		#81J
8190	XED	.CROGT		#81J
8200	TSS	*+1		#81J
8210	INHIB	RESTORE		#81J
8220	STA	105,2		#81J
8230	TRA	GUST3N		#81J
8240\$	ALTER	381	***** GMF ALTERS *****	
8250	SYMPREF	TREP		GMF
8260	TRMAC	MACRO		GMF
8270	VFD	18/TREP,018/717200	EXECUTE DOUBLE AT TREP	GMF
8280	VFD	18/#1,12/#2,C6/74	HAVE 18/PATTERN, 12/TRACE #, 06/74	GMF
8290	ENDM	TRMAC		GMF
8300	TRMAC	21,130	PATTERN VALUE, TRACE TYPE	GMF
8310\$	ALTER	685	***** GMF ALTER *****	
8320	TRMAC	0,132	PATTERN VALUE, TRACE TYPE	GMF
8330\$	ALTER	788	***** GMF ALTER *****	
8340	TRMAC	0,183	PATTERN VALUE, TRACE TYPE	GMF
8350\$	ALTER	1099	***** GMF ALTER *****	
8360R.T165	TRMAC	17,165	PATTERN VALUE, TRACE TYPE	GMF
8370	TRA	R.NORM	CONTINUE WHERE LEFT OFF	GMF
8380\$	ALTER	1102,1102	***** GMF ALTER *****	
8390	TRA	R.T165	MAKE TRACE T165	GMF
8400\$	ALTER	1118	***** GMF ALTER *****	
8410	TRMAC	18,138	PATTERN VALUE, TRACE TYPE	GMF
8420\$	ALTER	1142	***** GMF ALTER *****	
8430	TRMAC	17,165	PATTERN VALUE, TRACE TYPE	GMF
8440\$	ALTER	1160	***** GMF ALTERS *****	
8450R.T145	TRMAC	0,145	PATTERN VALUE, TRACE TYPE	GMF
8460	TRA	R.NORM	CONTINUE IN ORIGINAL SEQUENCE	GMF
8470\$	ALTER	1162,1162	***** GMF ALTER *****	
8480	TRA	R.T145	DON'T ADD INSTRUCTIONS HERE	GMF
8490\$	ALTER	1193	***** GMF ALTER *****	
8500	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
8510\$	ALTER	1234	***** GMF ALTER *****	
8520	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
8530\$	ALTER	1236	***** GMF ALTER *****	
8540	TRMAC	0,140	PATTERN VALUE, TRACE TYPE	GMF
8550\$	ALTER	1280	***** GMF ALTER *****	
8560	TRMAC	0,148	PATTERN VALUE, TRACE TYPE	GMF
8570\$	ALTER	1288	***** GMF ALTER *****	
8580	TRMAC	20,146	PATTERN VALUE, TRACE TYPE	GMF
8590\$	ALTER	1326	***** GMF ALTER *****	
8600	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
8610\$	ALTER	1348	***** GMF ALTER *****	
8620	TRMAC	0,145	PATTERN VALUE, TRACE TYPE	GMF
8630\$	ALTER	1356	***** GMF ALTER *****	
8640	TRMAC	20,146	PATTERN VALUE, TRACE TYPE	GMF
8650\$	ALTER	1420	***** GMF ALTER *****	
8660	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
8670\$	ALTER	1443	***** GMF ALTER *****	
8680	TRMAC	0,145	PATTERN VALUE, TRACE TYPE	GMF

Figure J-5. (Part 17 of 20)

8690\$	ALTER	1451	***** GMF ALTER *****	
8700	TRMAC	20,146	PATTERN VALUE, TRACE TYPE	GMF
10\$	ALTER	1488	***** GMF ALTER *****	
8720	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
8730\$	ALTER	1510	***** GMF ALTER *****	
8740	TRMAC	0,143	PATTERN VALUE, TRACE TYPE	GMF
8750\$	ALTER	1545	***** GMF ALTER *****	
8760	TRMAC	18,139	PATTERN VALUE, TRACE TYPE	GMF
8770\$	ALTER	1600	***** GMF ALTERS *****	
8780T145	LDA	-1,3	GET GEROUT VFD WORD	GMF
8790	ANA	=0770000,DL	GET GEROUT OP-CODE	GMF
8800	CMFA	=0210000,DL	PAPER TAPE START?	GMF
8810	TZE	T145A	YES-MAKE TRACE T145	GMF
8820	CMFA	=0220000,DL	PAPER TAPE CONTINUE?	GMF
8830	TNZ	R.NORM	NO-CONTINUE	GMF
8840T145A	TRMAC	0,145	PATTERN VALUE, TRACE TYPE	GMF
8850	TRA	R.NORM	CONTINUE IN ORIGINAL SEQUENCE	GMF
8860*				
8870*	NOTE—THE A-REGISTER NEED NOT BE SAVED, SINCE R.NORM+1			GMF
8880*	RESTORES ALL REGISTERS			GMF
8890\$	ALTER	1604,1604	***** GMF ALTER *****	
8900	TRA	T145	DON'T ADD INSTRUCTIONS HERE	GMF
8910\$	MODIFY	SOURCE,OBJECT,TSSO		
8920\$	GMAP			TSSO
8930\$	UPDATE	LIST		TSSO/GMF
8940\$	ALTER	9	***** ENABLE PMC *****	GMF
8950	PMC	ON		GMF
.60	SYMREF	TREP		GMF
8970TRMAC	MACRO			GMF
8980	VFD	18/TREP,018/717200	EXECUTE DOUBLE AT TREP	GMF
8990	VFD	18/#1,12/#2,06/74	HAVE 18/PATTERN, 12/TRACE #	GMF
9000	ENDM	TRMAC		GMF
9010\$	ALTER	322	***** GMF ALTERS *****	
9020	TRMAC	18,149	PATTERN VALUE, TRACE TYPE	GMF
9030\$	ALTER	366	***** GMF ALTER *****	
9040	TRMAC	0,148	PATTERN VALUE, TRACE TYPE	GMF
9050\$	ALTER	374	***** GMF ALTER *****	
9060	TRMAC	20,146	PATTERN VALUE, TRACE TYPE	GMF
9070\$	ALTER	422	***** GMF ALTER *****	
9080	TRMAC	12,146	PATTERN VALUE, TRACE TYPE	GMF
9090\$	ALTER	728	***** GMF ALTER *****	
9100	TRMAC	0,148	PATTERN VALUE, TRACE TYPE	GMF
9110\$	ALTER	836	***** ALTERS FROM SYSTEM PATCHES *****	
9120	LDA	COUNT		#69I
9130	STA	CNTR		#69I
9140\$	ALTER	886,886	***** ALTER FROM SYSTEM PATCHES *****	
9150	TSX1	P2		#69I
9160\$	ALTER	906,906	***** ALTER FROM SYSTEM PATCHES *****	
9170	TSX1	P2		#69I
9180\$	ALTER	913	***** ALTER FROM SYSTEM PATCHES *****	
9190COUNT	DEC	-48		#69I

Figure J-5. (Part 18 of 20)

9200SAVAR	OCT	0		#69I
9210P2	ESTA	SAVAR		#69I
9220	AOS	CNTR		#69I
9230	TZE	3,IC		#69I
9240	LDA	SAVAR		#69I
9250	TRA	KOTBCK		#69I
9260	STX5	CNTR		#69I
9270	SXL6	CNTR		#69I
9280	MME	.EMM		#69I
9290	EAX7	0,7		#69I
9300	TNZ	*+3,\$		#69I
9310	LDAQ	.CRMCM		#69I
9320	SMCM	0		#69I
9330	LDX5	CNTR,\$		#69I
9340	LXL6	CNTR,\$		#69I
9350	LDA	COUNT,\$		#69I
9360	STA	CNTR,\$		#69I
9370	LDA	SAVAR,\$		#69I
9380	TSS	KOTBCK		#69I
9390CNTR	OCT	0		#69I
9400GMASK	OCT	17,17		#69I
9410\$	ALTER	933	***** ALTERS FROM SYSTEM PATCHES *****	
9420	LXL4	.LBUF,2		#75H
9430	ANX4	=0370000,DU		#75H
9440	SBLX4	=0130000,DU		#75H
9450	TPL	KOTBCO		#75H
9460\$	ALTER	1123	***** GMF ALTERS *****	
9470T.137B	EAX2	-.LKCC-1,3	SET UP X2=UST ADDRESS	GMF
9480	TRMAC	0,137	PATTERN VALUE, TRACE TYPE	GMF
9490	EAX1	KOTBCC+2	THESE TWO INSTRUCTIONS REPLACE THE	GMF
9500	TRA	KSTAT	TSX1 KSTAT REPLACED BELOW BY TRA T.137B	
9510\$	ALTER	1124,1124	***** GMF ALTER *****	
9520	TRA	T.137B	TO MAKE TRACE OUT OF LINE	GMF
9530\$	ALTER	1239,1240	***** ALTERS FROM SYSTEM PATCHES *****	
9540	ZERO	.MFS03,.MFS03	LOAD MODULE .MFS03	#81A
9550	ZERO	.MFS04,.MFS04		#81A
9560	ZERO	.MFS09,.MFS09		#81A
9570	ZERO	.MFS36,.MFS36		#81A
9580	ZERO	.MFS61,.MFS61		#81A
9590	ZERO	.MFS08,.MFS08		#81A
9600\$	ALTER	1244,1244	***** ALTER FROM SYSTEM PATCHES *****	
9610	TZE	SSALD7	THERE ARE NONE, SKIP THIS	#50J
9620\$	ALTER	1393-	***** GMF ALTERS *****	
9630	MME	GEINOS	PRINT STARTING MESSAGE	GMF
9640	WTYP			GMF
9650	ZERO	IN930,MAIN01		GMF
9660	ZERO	STATUS		GMF
9670	MME	GEROAD	WAIT	GMF
9680\$	ALTER	1447	***** GMF ALTERS *****	
9690MAIN01	IOTD	*+1,9		GMF
9700	OCT	770117171717		GMF

Figure J-5. (Part 19 of 20)

9710	BCI	3,*T/S GMF VERSION	GMF
9720	DATE		GMF
30	BCI	4, SUCCESSFULLY LOADED	GMF
9740TSC	BCI	1,.TSSEC	#96J
9750H1	DEC	-1	#96J
9760\$	ALTER	2296	***** ALTERS FROM SYSTEM PATCHES *****
9770	STA	H1	#96J
9780	LDA	IN022	#96J
9790	CMPA	TSC	#96J
9800	TNZ	P2A	#96J
9810	LDA	H1	#96J
9820	ADLA	=0200,DL	#96J
9830	TRA	*+2	#96J
9840P2A	LDA	H1	#96J
9850\$	INCLUDE		
9860\$	ENTRY	MAIN	
9870\$	EXECUTE		
9880\$	ENDLD		
9890\$	ENDEDIT		
9900\$	ENDCOPY		
9910\$	PRMFL	M*,R,S,B29IDPX0/TSS6.4.1	
9920\$	FILE	*R,Z2R	
9930\$	FILE	R*,X3S.30L	
9940\$	SYSEDIT		
9950	ENDFILE/TSS-GECALL/		
9960\$	LIMITS	,40K	
9970\$	FILE	R*,X3R	
80\$	TAPE	Q*,X5D,,99999,,RING-IN ** SUPPLY TAPE NUMBER **	

Figure J-5. (Part 20 of 20)

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